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#46

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/08/803,954B

DATE: 02/27/2003 8-6

TIME: 10:29:50

Input Set : A:\68430009.app

Output Set: N:\CRF4\02272003\H803954B.raw

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5 <110> APPLICANT: Langley, Keith E
7      Boone, Thomas C
9      DeClerck, Yves A
13 <120> TITLE OF INVENTION: METALLOPROTEINASE INHIBITOR
17 <130> FILE REFERENCE: 06843.0009-08000
21 <140> CURRENT APPLICATION NUMBER: 08/803,954B
23 <141> CURRENT FILING DATE: 2001-08-29
27 <150> PRIOR APPLICATION NUMBER: 08/212,660
29 <151> PRIOR FILING DATE: 1994-03-11
33 <150> PRIOR APPLICATION NUMBER: 08/087,021
35 <151> PRIOR FILING DATE: 1993-07-06
39 <150> PRIOR APPLICATION NUMBER: 07/710,728
41 <151> PRIOR FILING DATE: 1991-06-03
45 <150> PRIOR APPLICATION NUMBER: 07/501,904
47 <151> PRIOR FILING DATE: 1990-03-29
51 <150> PRIOR APPLICATION NUMBER: 07/355,027
53 <151> PRIOR FILING DATE: 1989-05-19
57 <160> NUMBER OF SEQ ID NOS: 36
61 <170> SOFTWARE: PatentIn Ver. 2.0
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67 <211> LENGTH: 13
69 <212> TYPE: PRT
71 <213> ORGANISM: Homo sapiens
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87 <211> LENGTH: 19
89 <212> TYPE: PRT
91 <213> ORGANISM: Homo sapiens
95 <400> SEQUENCE: 2
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99   1             5             10             15
103 Val Val Ile
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113 <211> LENGTH: 20
115 <212> TYPE: PRT
117 <213> ORGANISM: Homo sapiens
121 <400> SEQUENCE: 3
123 Val Val Phe Phe Pro Val Ala His Pro His Ser Trp Pro Thr Gln Val
125   1             5             10             15
129 Ser Leu Arg Thr
131             20

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137 <210> SEQ ID NO: 4
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141 <212> TYPE: PRT
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151 1 5 10 15
155 Val Ser Leu Arg Thr
157 20
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165 <211> LENGTH: 6
167 <212> TYPE: PRT
169 <213> ORGANISM: Homo sapiens
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177 1 5
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185 <211> LENGTH: 1045
187 <212> TYPE: DNA
189 <213> ORGANISM: Bos taurus
193 <400> SEQUENCE: 6
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197 ccgcccccca gccagctctc gcttccgcgc cgccagccgc gccccgcgcc tctcgcgtgc 120
199 accccgcgac ctagagccaa gaaagtttgt gtggcgagtg agggccggag aggagagcgc 180
201 gcccgcggag tgccgtccag accagcgcgg ccccggcgga gaggggagcg ccccgagccc 240
203 aggcggcggc ggctagcccg agtccgcgac ccccgcccct ccgcccgcca tgggcgccgc 300
205 cgcccgcagc ctgcccgtcg cgttctgcct cctgctgctg gggacgctgc tccccgggc 360
207 cgacgcctgc agctgctccc cggtgcaccc gcaacaggcg ttttgcaatg cagacatagt 420
209 gatcagggcc aaagcagtc aataagaagga ggtggactct ggcaacgaca tctacggcaa 480
211 ccccatcaag cggattcagt atgagatcaa gcagataaag atgttcaagg gacctgatca 540
213 ggacatagag tttatctaca cagccccgcg cgctgccgtg tgtggggtct cgctggacat 600
215 tggaggaaa aaggagtatc tcattgcagg gaaggccgag gggaatggca atatgcatat 660
217 caccctctgt gacttcatcg tgccctggga caccctgagt gccaccaga agaagagcct 720
219 gaaccacagg taccagatgg gctgtgagtg caagatcact cgatgcccc tgatcccatg 780
221 ctacatctcc tctccggacg agtgcctctg gatggactgg gtcacggaga agaacatcaa 840
223 cggacaccag gccaaagttct tcgcctgcat caagagaagc gacggctcct gcgcctggta 900
225 ccgcggagca gcaaccccc aagcaggagtt tctggacatg aggacccgta agcaggccac 960
227 caggactcct ggggccaatt gacagtgtcc aagagttcag actggtccag ctccgacatc 1020
229 ccttcctgga cacagcatga ataaa 1045
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235 <211> LENGTH: 220
237 <212> TYPE: PRT
239 <213> ORGANISM: Bos taurus
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247 1 5 10 15
251 Leu Gly Thr Leu Leu Pro Arg Ala Asp Ala Cys Ser Cys Ser Pro Val
253 20 25 30
257 His Pro Gln Gln Ala Phe Cys Asn Ala Asp Ile Val Ile Arg Ala Lys

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259          35          40          45
263 Ala Val Asn Lys Lys Glu Val Asp Ser Gly Asn Asp Ile Tyr Gly Asn
265          50          55          60
269 Pro Ile Lys Arg Ile Gln Tyr Glu Ile Lys Gln Ile Lys Met Phe Lys
271 65          70          75          80
275 Gly Pro Asp Gln Asp Ile Glu Phe Ile Tyr Thr Ala Pro Ala Ala Ala
277          85          90          95
281 Val Cys Gly Val Ser Leu Asp Ile Gly Gly Lys Lys Glu Tyr Leu Ile
283          100          105          110
287 Ala Gly Lys Ala Glu Gly Asn Gly Asn Met His Ile Thr Leu Cys Asp
289          115          120          125
293 Phe Ile Val Pro Trp Asp Thr Leu Ser Ala Thr Gln Lys Lys Ser Leu
295          130          135          140
299 Asn His Arg Tyr Gln Met Gly Cys Glu Cys Lys Ile Thr Arg Cys Pro
301 145          150          155          160
305 Met Ile Pro Cys Tyr Ile Ser Ser Pro Asp Glu Cys Leu Trp Met Asp
307          165          170          175
311 Trp Val Thr Glu Lys Asn Ile Asn Gly His Gln Ala Lys Phe Phe Ala
313          180          185          190
317 Cys Ile Lys Arg Ser Asp Gly Ser Cys Ala Trp Tyr Arg Gly Ala Ala
319          195          200          205
323 Pro Pro Lys Gln Glu Phe Leu Asp Ile Glu Asp Pro
325          210          215          220
331 <210> SEQ ID NO: 8
333 <211> LENGTH: 1032
335 <212> TYPE: DNA
337 <213> ORGANISM: Homo sapiens
341 <400> SEQUENCE: 8
343 attccggcccc gccgtccccc accccgcccgc cccgcccggc gaattgcgcc ccgcgcccct 60
345 cccctcgcgcg ccccgagaca aagaggagag aagtttgcg cgccgagcgg ggcaggtgag 120
347 gaggggtgagc cgcgcgggag gggcccgcc cggcccgcg tcagccccc cccgcgcccc 180
349 cagcccgccg cgcgagcag cgcccgacc ccccgcgcg ggcccccgcc cgcccagccc 240
351 cccggcccgcg catgggcgccc gcggcccgca ccctgcggct ggcgctcgcc ctccctgctgc 300
353 tggcgacgct gcttcgcccg gccgacgcct gcagctgctc cccggtgcac ccgcaacagg 360
355 cgtttttcaa tgcagatgta gtgatcagg ccaaagcgg cagtgagaag gaagtggact 420
357 ctggaaacga catttatggc aaccctatca agaggatcca gtatgagatc aagcagataa 480
359 agatgttcaa agggcctgag aaggatatag agtttatcta cacggccccc tcctcggcag 540
361 tgtgtgggggt ctgctggac gttggaggaa agaaggaata tctcattgca ggaaaggccg 600
363 agggggacgg caagatgcac atcacctct gtgacttcat cgtgccctgg gacaccctga 660
365 gcaccaccca gaagaagagc ctgaaccaca ggtaccagat gggctgcgag tgcaagatca 720
367 cgcgctgccc catgatcccg tgctacatct cctcccga cgagtgcctc tggatggact 780
369 gggtcacaga gaagaacatc aacgggcacc aggccaagt cttcgctgac atcaagagaa 840
371 gtgacggctc ctgtgcgtgg taccgcggcg cggcgcccc caagcaggag tttctcgaca 900
373 tcgaggaccc ataagcaggc ctccaacgcc cctgtggcca actgcaaaaa aagcctccaa 960
375 ggggtttcgac tgggccagct ctgacatccc ttccctggaaa cagcatgaat aaaacactca 1020
377 tccccggaat tc 1032
381 <210> SEQ ID NO: 9
383 <211> LENGTH: 220
385 <212> TYPE: PRT

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Output Set: N:\CRF4\02272003\H803954B.raw

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387 <213> ORGANISM: Homo sapiens
391 <400> SEQUENCE: 9
393 Met Gly Ala Ala Ala Arg Thr Leu Arg Leu Ala Leu Gly Leu Leu Leu
395   1           5           10           15
399 Leu Ala Thr Leu Leu Arg Pro Ala Asp Ala Cys Ser Cys Ser Pro Val
401           20           25           30
405 His Pro Gln Gln Ala Phe Cys Asn Ala Asp Val Val Ile Arg Ala Lys
407           35           40           45
411 Ala Val Ser Glu Lys Glu Val Asp Ser Gly Asn Asp Ile Tyr Gly Asn
413           50           55           60
417 Pro Ile Lys Arg Ile Gln Tyr Glu Ile Lys Gln Ile Lys Met Phe Lys
419   65           70           75           80
423 Gly Pro Glu Lys Asp Ile Glu Phe Ile Tyr Thr Ala Pro Ser Ser Ala
425           85           90           95
429 Val Cys Gly Val Ser Leu Asp Val Gly Gly Lys Lys Glu Tyr Leu Ile
431           100          105          110
435 Ala Gly Lys Ala Glu Gly Asp Gly Lys Met His Ile Thr Leu Cys Asp
437           115          120          125
441 Phe Ile Val Pro Trp Asp Thr Leu Ser Thr Thr Gln Lys Lys Ser Leu
443           130          135          140
447 Asn His Arg Tyr Gln Met Gly Cys Glu Cys Lys Ile Thr Arg Cys Pro
449   145          150          155          160
453 Met Ile Pro Cys Tyr Ile Ser Ser Pro Asp Glu Cys Leu Trp Met Asp
455           165          170          175
459 Trp Val Thr Glu Lys Asn Ile Asn Gly His Gln Ala Lys Phe Phe Ala
461           180          185          190
465 Cys Ile Lys Arg Ser Asp Gly Ser Cys Ala Trp Tyr Arg Gly Ala Ala
467           195          200          205
471 Pro Pro Lys Gln Glu Phe Leu Asp Ile Glu Asp Pro
473           210          215          220
479 <210> SEQ ID NO: 10
481 <211> LENGTH: 45
483 <212> TYPE: PRT
485 <213> ORGANISM: Bos taurus
489 <400> SEQUENCE: 10
491 Cys Ser Cys Ser Pro Cys His Pro Gln Gln Ala Phe Cys Asn Ala Asp
493   1           5           10           15
497 Ile Val Ile Arg Ala Lys Ala Val Asn Lys Lys Glu Val Asp Ser Gly
499           20           25           30
503 Asn Asp Ile Tyr Gly Asn Pro Ile Lys Arg Lys Gln Tyr
505           35           40           45
511 <210> SEQ ID NO: 11
513 <211> LENGTH: 49
515 <212> TYPE: PRT
517 <213> ORGANISM: Bos taurus
521 <400> SEQUENCE: 11
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529 Val Val Ile Arg Ala Lys Phe Val Gly Thr Ala Glu Val Asn Glu Thr

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531          20          25          30
535 Ala Leu Leu Tyr Arg Tyr Leu Ile Lys Met Leu Lys Met Pro Ser Gly
537          35          40          45
541 Phe
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551 <211> LENGTH: 49
553 <212> TYPE: PRT
555 <213> ORGANISM: Homo sapiens
559 <400> SEQUENCE: 12
561 Cys Thr Cys Val Pro Pro His Pro Gln Thr Ala Phe Cys Asn Ser Asp
563   1          5          10          15
567 Leu Val Ile Arg Ala Lys Phe Val Gly Thr Pro Glu Val Asn Gln Thr
569          20          25          30
573 Thr Leu Tyr Gln Arg Tyr Glu Ile Lys Met Thr Lys Met Tyr Lys Gly
575          35          40          45
579 Phe
587 <210> SEQ ID NO: 13
589 <211> LENGTH: 49
591 <212> TYPE: PRT
593 <213> ORGANISM: Bos taurus
597 <400> SEQUENCE: 13
599 Cys Thr Cys Val Pro Pro His Pro Gln Thr Ala Phe Cys Asn Ser Asp
601   1          5          10          15
605 Val Val Ile Arg Ala Lys Phe Val Gly Thr Ala Glu Val Asn Glu Thr
607          20          25          30
611 Ala Leu Leu Tyr Arg Tyr Leu Ile Lys Met Leu Lys Met Pro Ser Gly
613          35          40          45
617 Phe
625 <210> SEQ ID NO: 14
627 <211> LENGTH: 45
629 <212> TYPE: PRT
631 <213> ORGANISM: Bos taurus
635 <400> SEQUENCE: 14
637 Cys Ser Cys Ser Pro Val His Pro Gln Gln Ala Phe Cys Asn Ala Asp
639   1          5          10          15
643 Ile Val Ile Arg Ala Lys Ala Val Asn Lys Lys Glu Val Asp Ser Gly
645          20          25          30
649 Asn Asp Ile Tyr Gly Asn Pro Ile Lys Arg Ile Gln Tyr
651          35          40          45
657 <210> SEQ ID NO: 15
659 <211> LENGTH: 45
661 <212> TYPE: DNA
663 <213> ORGANISM: Bos taurus
667 <400> SEQUENCE: 15
669 gatcacaatg tcagcattgc agaaggcctg ctgggggatgc acagg
673 <210> SEQ ID NO: 16
675 <211> LENGTH: 30
677 <212> TYPE: DNA
679 <213> ORGANISM: Artificial Sequence

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**RAW SEQUENCE LISTING ERROR SUMMARY**  
**PATENT APPLICATION: US/08/803,954B**

DATE: 02/27/2003  
TIME: 10:29:51

Input Set : A:\68430009.app  
Output Set: N:\CRF4\02272003\H803954B.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:16; N Pos. 4,19,22,28  
Seq#:17; N Pos. 4,7,13,19,28

**Invalid Line Length:**

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 1,3,5,7,9,11,13,15,19,21,23,25,27,29,31,33,35,37,39,41,43  
Seq#:1; Line(s) 45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83  
Seq#:1; Line(s) 85  
Seq#:2; Line(s) 87,89,91,93,95,97,99,101,103,105,107,109,111  
Seq#:3; Line(s) 113,115,117,119,121,123,125,127,129,131,133,135,137  
Seq#:4; Line(s) 139,141,143,145,147,149,151,153,155,157,159,161,163  
Seq#:5; Line(s) 165,167,169,171,173,175,177,179,181,183  
Seq#:6; Line(s) 185,187,189,191,193,195,197,199,201,203,205,207,209,211,213  
Seq#:6; Line(s) 215,217,219,221,223,225,227,229,231,233  
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Seq#:7; Line(s) 265,267,269,271,273,275,277,279,281,283,285,287,289,291,293  
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Seq#:7; Line(s) 325,327,329,331  
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Seq#:8; Line(s) 363,365,367,369,371,373,375,377,379,381  
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Seq#:14; Line(s) 627,629,631,633,635,637,639,641,643,645,647,649,651,653  
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Seq#:15; Line(s) 659,661,663,665,667,669,671,673  
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Seq#:17; Line(s) 739,741,743,745,747,749,751,753,755,757,759,761,763,765  
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Seq#:17; Line(s) 795,797,799,801,803,805,807,809,811  
Seq#:18; Line(s) 813,815,817,819,821,823,825,827

**RAW SEQUENCE LISTING ERROR SUMMARY**  
PATENT APPLICATION: **US/08/803,954B**

DATE: 02/27/2003  
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Input Set : **A:\68430009.app**  
Output Set: **N:\CRF4\02272003\H803954B.raw**

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Seq#:21; Line(s) 861,863,865,867,869,871,873,875  
Seq#:22; Line(s) 877,879,881,883,885,887,889,891,893,895,897,899  
Seq#:23; Line(s) 901,903,905,907,909,911,913,915,917,919,921,923  
Seq#:24; Line(s) 925,927,929,931,933,935,937,939,941,943,945,947,949,951  
Seq#:25; Line(s) 953,955,957,959,961,963,965,967,969,971,973,975,977,979  
Seq#:26; Line(s) 981,983,985,987,989,991,993,995,997,999,1001,1003,1005  
Seq#:26; Line(s) 1007  
Seq#:27; Line(s) 1009,1011,1013,1015,1017,1019,1021,1023,1025,1027,1029  
Seq#:27; Line(s) 1031  
Seq#:28; Line(s) 1033,1035,1037,1039,1041,1043,1045,1047,1049,1051,1053  
Seq#:28; Line(s) 1055  
Seq#:29; Line(s) 1057,1059,1061,1063,1065,1067,1069,1071,1073,1075,1077

**VERIFICATION SUMMARY**

DATE: 02/27/2003

PATENT APPLICATION: **US/08/803,954B**

TIME: 10:29:51

Input Set : **A:\68430009.app**Output Set: **N:\CRF4\02272003\H803954B.raw**

L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0

L:807 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0